

AMENDMENTS TO THE CLAIMS

The below listing of claims replaces all prior versions of claims in the application.

1.-24. (Canceled)

25. (Previously Presented) A liquid crystal shutter comprising:

a liquid crystal device forming pixels, which includes a nematic liquid crystal having a twisted angle equal to or greater than 180° sealed in between a pair of substrates on whose inner surfaces opposed to each other are formed electrodes; and

a pair of polarizing plates between which is sandwiched said liquid crystal device, each absorption axis of said polarizing plates being shifted from the direction in which liquid crystal molecules are orientated on each substrate of said liquid crystal device,

said pixels being controlled by voltage applied to the electrodes of said liquid crystal device so as to be closed state in low transmittance or opened state in high transmittance wherein the opened state is performed with birefringence of light by said liquid crystal device and said polarizing plates during no voltage is applied, and having a characteristic the transmittance of the pixels reaches maximum in the opened state during turning back to the opened state when the voltage applied to the electrodes of said liquid crystal device is turned off under the closed state in which transmittance of the pixels are lowered by applying voltage to the electrodes,

wherein a frame term as a single drive term of said liquid crystal shutter includes a scan term during which the pixels are controlled to be the opened state, the closed state or half-opened state which is mid state of the opened state and the closed state, and a duration of the scan term is

set shorter than a holding time for keeping the maximum transmittance after the voltage for controlling the pixels to be the closed state is turned off.

26. (Currently Amended) The liquid crystal shutter according to ~~claim 1~~ claim 25, wherein the absorption axes of said pair of polarizing plates are substantially orthogonal to each other, and being angled within a range of $\pm 40^\circ$ to $\pm 50^\circ$ relative to a direction in which intermediate liquid crystal molecules are orientated, the direction indicating a direction of orientation of the liquid crystal in an intermediate portion in a direction of thickness of said liquid crystal device.

27. (Currently Amended) The liquid crystal shutter according to ~~claim 1~~ claim 25, wherein said frame term includes a reset term during which all pixels are the closed state, and the scan term is set up after the reset term.

28. (Currently Amended) The liquid crystal shutter according to ~~claim 3~~ claim 27, wherein said reset term is longer than on-response time during which the pixels are varied from the opened state to the closed state.

29. (Currently Amended) The liquid crystal shutter according to ~~claim 1~~ claim 25, wherein period during which voltage applied to the electrodes of said liquid crystal device in said scan term is set to 0V is varied to perform a gradation display.

30. (Currently Amended) The liquid crystal shutter according to ~~claim 1~~ claim 25, wherein the voltage applied to the electrodes of said liquid crystal device in said scan term is varied from 0V to perform a gradation display.

31. (Currently Amended) The liquid crystal shutter according to ~~claim 1~~ claim 25, wherein said frame term is controlled depending on an operating temperature, so as to be increased at a time of a low temperature but reduced at a time of a high temperature.